

June 2, 2005

MEMORANDUM

TO: Doug Howard, Twin Falls Regional Administrator

FROM: Olga Lutt, Associate Engineer

SUBJECT: SENECA FOODS INC. -- WASTEWATER-LAND APPLICATION PERMIT
APPLICATION NO. LA-000016-01 MODIFICATION FOR NEW ACREAGE
(INDUSTRIAL WASTEWATER)

PURPOSE

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.17.400.04 for issuing wastewater land application permit modifications.

PROCESS DESCRIPTION

Seneca Foods Inc. purchased this facility from the Pillsbury Company prior to the 1995 operating season. The facility, which processes peas and corn, is located east of Buhl, Idaho, north of Highway 30.

Historically, between years 1991 and 1994, the average wastewater applied was 103.72 million gallons per year to 472 acres of farmland planted in barley, sweet corn and peas. The permit issued on July 26, 1995 incorporates an additional 224 acres of farmland adjacent to the existing site. Between years 1998 and 2003 the average wastewater applied did range between 98.3 million gallons in 2003 and 174.1million gallons in 2000.

Pea processing operations normally occur in June and July, which is followed by corn processing in August through September or October. The corn processing operations typically lasts 50 to 70 days. About 10% of the wastewater volume originates from pea operations with the remainder coming from corn processing operations.

The corn processing wastewater contains the heaviest concentrations of TDS, COD, and nutrients. On a mass basis, the corn processing wastewater has historically accounted for 92% of the inorganic TDS and 98% of the COD and nitrogen.

SUMMARY OF EVENTS AND DISCUSSION

Pillsbury's original permit application was received on September 29, 1988 and Permit LA-000016 was issued on February 28, 1989 with an expiration date of January 31, 1994. On July 21, 1993, the permit expiration date was extended to January 31, 1995.

Pillsbury applied to renew their permit in July 1994. Seneca Foods purchased the facility in 1995 and continued the permit renewal process. In March 1995, Seneca provided maps showing an additional 224 acres of farmland to be added to the land application system.

A draft permit was issued on April 12, 1995. Additional discussions were held with Seneca and their consultants, CH2MHill, and a site visit was conducted in May 1995 to assist in completing permit development. A second draft permit was issued June 16, 1995 and a final draft was issued July 26, 1995.

A WLAP permit renewal application was submitted on January 25, 2000. On June 11, 2001 a draft WLAP and staff analysis were transmitted for review and comment to Seneca Foods Inc. On September 11, 2001 comments on Draft Wastewater Land Application Permit LA-000016-03 prepared by Cascade Earth Sciences (CES) were received. A response to the comments was prepared by Gary Burkett, P.E. (EHM Engineers Inc.) in a memorandum to Dave Anderson dated October 30, 2001.

On June 17, 2002 a letter from Seneca Foods consultant (George Spinner, Managing Scientist with CES) discusses the addition of 72 acres (referred to as Miller Site) and a 100 acres parcel (referred to as McDonald/Lemoyne site). The proposal requested approval of the additional 172 acres at deminimis loading for the remainder of 2002 growing season. On August 16, 2002, the DEQ issued a modification to the permit authorizing the use of the new proposed sites through October 31, 2002. The following year, on July 11, 2003 a new permit modification for the same 172 acres was issued and is currently in effect.

An addendum to the permit renewal application prepared by George Spinner (CES) was received on November 12, 2002. The addendum requested that an additional 75 acres farm (referred to as Paulson) be permitted for land application of wastewater.

On June 1, 2005 a permit modification application was transmitted via e-mail by George Spinner, CES's Managing Scientist in behalf of Seneca Foods, Inc. The purpose of this addendum is to request the addition of 118 acres (referred to as Gomez) to the permitted land application site. As discussed in the application, one of the primary reasons for proposing the addition of this site is to achieve lower COD loading rates and allow greater flexibility in the management of the baler water (the largest source of COD).

In the past several years, Seneca Foods, Inc. initiated and implemented several improvements. Following is a list:

- Addition of land application area consisting of 172 acres (Miller and McDonald/LeMoyne farms));
- Installation of two shaker screens and two double screens prior to the surge pond;
- Non-volatile dissolved solids reduction by sending boiler water blowdown and softener recharge water to the city of Buhl wastewater treatment plant;
- Corn baler water collection into a trailer tank/slurry spreader and injection of the slurry below the ground surface;
- Water conservation measures, such as cooker micro-valve and freezer coil defrost water recycling;
- Installation of four (4) new monitoring wells to provide a more adequate groundwater monitoring network.
- Currently work is done for the installation of three pivots to replace part of the existing solid sets and gravity irrigation system. The pivots will cover approximately one half (1/2) of the Hendrix site (MU-001604), one half (1/2) of the Kaster site (MU-001605) and one half (1/2) of the Love/HDS (MU-001602).

The addition of Paulson (75 acres) and Gomez (118 acres) farms brings the total acreage available for wastewater land application to 1061 acres. The increased acreage helps reduce the nutrient loadings and gives more flexibility for the management of the permit.

KEY PERMIT MODIFICATION REQUIREMENTS

The following is a summary of the permit modification requirements. The conditions are similar to those required in the previous modifications:

- The wastewater loading of 4000 lb NVDS/ac-yr includes the loading from the supplemental irrigation water.
- Monitoring of the supplemental water volumes and non-volatile dissolved solids (NVDS) will be required.
- The COD loading of 50 lb/ac-day will be calculated using 214 days the growing season (April 1 to October 31).
- The total Nitrogen loading will be set at 250 lb/ac-day, for all the crops raised.
- The buffer zones will be set at 300 feet between the new site and the dwellings and 50 feet between the site and the areas accessible to the public.

RECOMMENDATION

Staff recommends that the attached modification to the existing permit (LA-000016-02) be issued to Seneca Foods, Inc.